

## Transmission Line Resonator Segmented with Series Capacitors - DTU Orbit (09/11/2017)

### Transmission Line Resonator Segmented with Series Capacitors

Transmission line resonators are often used as coils in high field MRI. Due to distributed nature of such resonators, coils based on them produce inhomogeneous field. This work investigates application of series capacitors to improve field homogeneity along the resonator. The equations for optimal values of evenly distributed capacitors are presented. The performances of the segmented resonator and a regular transmission line resonator are compared.

#### General information

State: Published

Organisations: Center for Hyperpolarization in Magnetic Resonance, Department of Electrical Engineering, Center for Magnetic Resonance, Electromagnetic Systems, University of Copenhagen

Authors: Zhurbenko, V. (Intern), Boer, V. (Ekstern), Petersen, E. T. (Ekstern)

Number of pages: 4

Publication date: 2016

#### Host publication information

Title of host publication: Proceedings of the International Society for Magnetic Resonance in Medicine 2016

Main Research Area: Technical/natural sciences

Conference: ISMRM 2016 Annual Meeting & Exhibition, Singapore, Singapore, 07/05/2016 - 07/05/2016

Source: PublicationPreSubmission

Source-ID: 124038347

Publication: Research - peer-review › Article in proceedings – Annual report year: 2016